DO STRATEGY CHOICES MATTER FOR NASCENT FIRMS? A STUDY ON EFFECTUATION AND CAUSATION IMPACTS ON NEW VENTURES OUTCOMES

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ABSTRACT

This paper explores empirically effects of Effectuation on firms performance overtime. Three potential outcomes for nascent firms using different levels of effectuation and causation are investigated. Newness, a measure of venture sophistication was introduced as a moderator. We examine a longitudinal random sample of 625 nascent firms collected over two years in Australia and provide support for our hypotheses. Results show that in situation of high uncertainty, nascent firms using effectuation are more likely to reach operational stage than their counterpart using causation.

INTRODUCTION

Strategy and firms outcomes have been extensively researched in the management literature for several decades (Mintzberg, 1978). Strategy is identified as a key driver of the performance of the firm (Sandberg & Hofer, 1987). Further studies have recognized that interaction and alignment between strategy, industry, environment and internal processes of the firm, for example are of uttermost importance (Edelman et al., 2005; Hough & White, 2003). However, despite this large amount of research, failure amongst new ventures remains high. Firms in emergence may encounter difficulty to organise and align their resources with their objectives as those may be blurred, undetermined and uncertain while resources are scarce (Knight, 1921; March, 1982; Weick, 1979). To mitigate this uncertainty, nascent firms may implement different -and opposite- strategies: some with an iterative dimension and some more planning oriented.

Effectuation and causation constitute both end of the spectrum of strategies that can be chosen by nascent firms according to their emphasis on control or on prediction (Sarasvathy, 2001; Sarasvathy, 2008). Causation, the theorized inverse to effectuation, may be described as a rational reasoning method to create a company (Sarasvathy, 2001).

One of the predictions of effectuation theory is that effectuation is more likely to be used by entrepreneurs early in the venture creation process (Sarasvathy, 2001). However, this temporal aspect and the impact of the effectuation and causation strategies on the venture outcomes have so far not been systematically and empirically tested on large samples.

The reason behind this research gap is twofold. Firstly, few studies collect longitudinal data on emerging ventures at an early enough stage of development to avoid severe survivor bias (Davidsson,

2006; Davidsson & Gordon, 2009; Davidsson & Wiklund, 2001; Reynolds, 2007). Second, the studies that collect such data have not included validated measures of effectuation and causation. The research we are conducting attempts to partially fill this gap by combining an empirical investigation on a large random sample of nascent firms with the effectuation/causation continuum as a basis (Sarasvathy, 2001).

The objectives are to understand how strategies used by new ventures during their creation process impact the firms outcomes overtime. The paper is organized as follows. After the introduction and the theory review we present our hypotheses. The methodology and the dataset are then described before discussing the results and their implications.

THEORY AND HYPOTHESES

Strategies

Planning and learning have represented the two prevailing currents of thought in strategy for decades (Ansoff, 1991; 1994; Mintzberg, 1990; 1991; 1994). The debate was centered around the best strategy to choose according to the nature of the environment the firms were operating into.

Ansoff and the tenants of planning (Porter, 1980) argued that careful and rational planning was suitable for both stable and unstable environments. Through formalized and detailed planning a strategy is elaborated, first by taking into account the ends to be achieved and then by organizing the means. However, several studies have suggested that this approach is more appropriate in the context of low uncertainty (Frederickson, 1984; Mintzberg 1990). In a context of nascent firms, this "synoptic" model may act as a risk mitigation strategy. However, it may also be time consuming and resources already in scarce number have to be dedicated to the planning activities which divert them from the product/service or market development necessary to transform the nascent firm into a fully operational entity.

Mintzberg (1978) advocated that in situation of uncertainty, firms learn from previous actions on the market and by experimentation they develop flexibility and adaptability to react quickly to unexpected situations and size new opportunities (Mosakowski, 1997). This adaptability also called "incremental planning" suggests that means and ends are no longer done in sequence but can be simultaneous designed to fit the market evolution (Frederickson & Mitchell, 1984). Interlacement of means and ends can be attractive for young firms as they may encounter difficulties to organise and align their objectives with their resources while coping with continuous market changes. However, by definition young firms lack organizational processes and routines and cannot use their own market feedback to position themselves and seize opportunities. As such, pure incremental strategies may not be adapted to nascent ventures at least in dynamic markets.

Several strategies were derived from these two schools capitalizing on and fine-tuning planning techniques such as dynamic capabilities (Teece, Pisano & Shuen, 1997) or real-options analysis techniques (Mc Grath, 1999). However, all of them emphasize the role of prediction and its effectiveness (Wiltbank et al., 2006).

In contrast, effectuation offers a radically new orientation and differentiates from planning strategies in two main aspects: by stressing on means available at the starting point of the venture as the core aspect of the logic and by relaxing the use of prediction proposed by planning strategies to emphasize the logic of control (Sarasvathy, 2001). Effectuation is best described by its following 5 components.

Effectuation logic suggests that entrepreneurs develop their new ventures in an iterative way by focusing on *means* (who I am; what I know; whom I know) to form the ground of their decisions. A range of actions can then be determined and refined by selecting possibilities through flexibility and interactions with the market. As outcomes are uncertain rather than using predictive techniques, effectuation introduces the notion of *affordable loss.* Stakeholders involved in the new venture dedicate resources they may afford to loose during the process. Then, opportunities are not selected with a profit maximization objective on the capital invested but on limiting the risk and size of failure by committing only the resources available (Dew et al., 2009). *Partnerships* are encouraged through the development of pre-commitments and alliances from stakeholders ranging from suppliers to

potential customers to foster market interaction and provide new streams of means (Sarasvathy, 2001). As a result, *contingencies* may be leveraged and capitalized upon to create new opportunities and are not avoided. Finally, the *design* of effectuation is that "the future is contingent upon actions by willfull agents" (Sarasvathy et al., 2008). As Sarasvathy resumes, "effectuation is a straight inversion of rational choice theory" (Sarasvathy, 2001).

In contrast, causation represents a linear and non-iterative process of venture creation based on neo-classical economics and models of strategic planning (Mintzberg, 1978). Entrepreneurs scan the market to identify opportunities, segment and analyze them and select the opportunity with the higher expected return (Sarasvathy, 2001). Then, a business plan is developed, resources are collected and the opportunity identified is implemented. Means are a necessity to achieve the pre-defined objectives and as such, do not come upstream to form the basis of the decision making process. As causation emphasizes prediction, planning activities (market research, competitive analysis) constitute an essential part of this logic (Brinckmann et al., 2008).

To the best of our knowledge, only one study has been published so far on the relationships between effectuation and new venture performance. This meta-analysis developed by Read et al., (2009) was conducted on articles published in the Journal of Business Venturing from 1996 to 2007. Independent variables were matched with the effectuation principles while dependent variables represented an aspect of new venture performance (Read et al., 2009). Overall, positive and significant relationships were found between effectuation items and new venture performance (Read et al., 2009).

Nascent firms and performance

New venture performance has been seen as a function of the entrepreneur's attributes, the strategy used by the firm and the industry structure in which the firm operates (Sandberg & Hofer, 1987). Several variables may affect the relationships between strategy and venture performance (Mintzberg, 1978; Porter, 1980). Moreover, the array of strategies that can be implemented is also constrained by the industry structure the firm operates in: the sector (retail, manufacturing, service...), the maturity and the competition intensity of the industry, the internal resources and the organizational structure and processes of the firm (Chrisman et al., 1999; Edelman et al., 2005; Haber & Reichel, 2005).

Due to both their liability of newness and liability of "smallness" new firms have some unique characteristics and face specific issues (Aldrich & Auster, 1986; Stinchcombe, 1965). Previous research shows the direct impact of strategies on the firm performance (Ebben & Johnson, 2005). As nascent and more mature firms do not face the same challenges, they need to develop different strategies in term of planning, goal definition, market entry strategy, alliances, investment and range of product offers amongst other (Porter, 1980; Schumpeter, 1934; Stevenson & Jarillo, 1980).

Studies conducted at individual level suggest that qualities required to develop the venture into a more mature entity are different from those needed to identify the opportunities at an early stage (Ciavarella et al., 2004). They also showed that entrepreneurs should move toward a more managerial role when the firm has reached a certain development stage, as failure to do so has a negative impact on the performance of the firm (Ciavarella et al., 2004).

Amongst the characteristics of entrepreneurs, "openness" to pursue new opportunities along the way appears to be detrimental to the new venture survival on a short term (4 years) and this negative effect worsens for long-term survival (more than 8 years) (Ciavarella et al., 2004). Thus, iterative strategies such as effectuation beneficial during the very early stages of new ventures development may become prejudicial overtime when maturity of firms increases. However, if Ciavarella et al., (2004) have examined this change at individual level with the characteristics of the entrepreneurs the strategic change at firm level and its impact on the venture outcomes remains unclear.

Causation as a straightforward, well documented, well diffused logic both in the entrepreneurship/strategic literatures and educational programs may shorten the nascent stage of the firm and foster market operation. The textbook, project management approach may provide a structure with objectives and milestones. It is then translated into a business plan that is in turn followed by the different stakeholders (Delmar & Shane, 2003). It may increase the number of gestation activities achieved in one period that is known to be a critical success factor for new firm survival.

In contrast, by its intrinsic elements and its interactive approach, effectuation incorporates new stakeholders resources and suggestions that can increase the adaptability and flexibility of the firm (Sarasvathy, 2001) but also become detrimental to the organization of the firm internal processes. In other words, effectuation may provide a fuzzy and boiling environment enticing creativity while damaging the firm modus operandi on a daily basis. Then, effectuation may be a favourable approach during the very early stages of the venture but may also impede the development of the firm and slackens its progress to the next stage. Thus we hypothesize that:

H1: Causation decreases the time in the "still trying" stage and reduces the time to get operational for nascent firms.

H2: Effectuation delays the process to get operational and increases the period in the "still trying" stage for nascent firms.

The moderating effects of levels of newness

Entrepreneurship literature has widely explored the complex relationships between newness, firm performance (Greve & Taylor, 2000; Klomp & Van Leeuwen, 2001), venture creation processes and the knowledge of the firm and the workers (Amason et al., 2006; Dewar & Dutton, 1986; Jennings et al., 2008). Radical innovations have a large and positive impact on the benefits of the firm while incremental innovations have a positive impact on revenue but not much on benefits (Kim & Mauborgne, 1997). However, risks and uncertainty in developing such a radical innovation are also greater and by definition radical innovation is not as common as other types of innovation (Kim & Mauborgne, 1997).

For innovative companies, uncertainty is a real challenge as they may encounter numerous, simultaneous and specific constraints. A firm developing newness cannot rely on market research to define its market nor use previous newness adoption patterns (Amason et al., 2006). This type of uncertainty is known as Knightian uncertainty where no probabilities of success or failure can be assigned ex ante (Knight, 1921; Wiltbank et al., 2006). As a result, those companies will have to make decisions and create their own markets while facing limited information availability, high Knightian uncertainty and risks.

Previous research has reported that sophistication of the firm -such as the level of technology being developed- influences the venture process by delaying it (Liao & Welsh, 2008). Nascent firms engaging in newness development provide more sophisticated products or services, and as a result they may experience a longer time to realize those products or services and launch them into the market (Liao & Welsh, 2008). They also have to interact with a large range of contacts to diffuse and increase the awareness of their newness (Liao & Welsh, 2008) while decreasing their liability of newness (Stinchcombe, 1965; Suchman, 1995).

Effectuation, "by making use of contingencies as they arise" (Sarasvathy, 2001), and by encouraging entrepreneurs to interact with stakeholders might appear to be an appropriate logic for companies evolving in such unpredictable environments (Brinckmann, et al., 2008).

In contrast, causation, by using planning and prediction tools provides a structure to nascent firms with objectives and milestones but, by doing so, introduces rigidity (Bresser & Bishop, 1983; Mintzberg, 1990; 1994) which in turn, may act as an impediment to creativity and flexibility in the context of surprises/contingencies that are common in newness development. Previous research reported that formal planning is not suited to highly dynamics contexts as firms have to be more flexible (Brews & Hunt, 1999; Burns & Stalker, 1961; Lawrence & Lorsch, 1967). However, breakthrough newness requires considerable levels of resources that can only be retrieved and organized with planning methodology to convince stakeholders and mitigate the liability of smallness and newness. Then, causation approach may be more adapted for firms situated at both end of the spectrum: the imitative or low innovative firms operating in defined (known) markets, and the highly innovative firms that require large material, human and financial resources to develop cutting edge innovation and penetrate new markets.

Nascent firms engaging in low level of newness development follow a more linear path and may utilise the available knowledge base previously created by others firms that have been confronted with the same issues. As such, uncertainty faced by these firms is more associated with the venture creation

process itself than with their degree of newness. Planning and causation strategy will streamline the process and provide the firms with clear objectives and milestones to be achieved while mitigate risks at the same time (Delmar & Shane, 2003; Shane & Delmar, 2004). Thus we hypothesize that:

H3: There is a curvilinear effect between the degree of newness and the use of effectuation where:

a): New ventures developing lower levels of newness in conjunction with causation are more likely to reach operational stage than their counterpart using effectuation strategies.

In contrast, nascent firms engaging in newness development are not able to use past situations or previous data as they face knightian type of uncertainty (Knight, 1921; Sarasvathy, 2008). Objectives of the firms may also be blurred as the newness being developed may lead the new venture toward several directions amongst which it is difficult to identify the most appropriate at this early stage (Weick, 1979). Then, those firms encounter a dual uncertainty with the venture creation process and with the newness developed. Effectuation may represent the strategy of choice to deal with those uncertainties (Sarasvathy, 2008). By encouraging firms to develop partnerships and market interaction at an early stage effectuation may act as a market-oriented strategy and foster operationalization of the firms. Thus we hypothesize that:

b): New ventures developing medium levels of newness in conjunction with effectuation are more likely to reach operational stage than their counterpart using causation.

Level of newness developed by the new venture may influence its strategies as the complexity of the decisions varies with the sophistication of the venture. Existing research indicates that firms dealing with breakthrough newness issues expect a longer process to create market awareness, to find a suitable business model and to achieve sustainable outcomes while facing a higher liability of newness (Stinchcombe, 1965). In this context, human, material and financial resources requirements are high and ability to secure them is a key element of potential firm's survival. A causal approach with careful planning activities, set objectives and deliverables appears to provide some structure to a highly uncertain project, to increases the possibilities to retrieve essential resources and maintain stakeholders' commitments, in a nutshell, to enable the highly innovative firm to obtain the elements needed to operate. Incremental planning and interaction with the market could delay performance of the firm in highly dynamic environments (Brews & Hunt, 1999: 903). Thus we hypothesize that:

c): New ventures developing high level of newness in conjunction with causation are more likely to reach operational stage than their counterpart using effectuation strategies.

METHODS

Samples and Data Collection

A longitudinal dataset of 625 nascent firms has been used in this study. This sample has been extracted from the Comprehensive Australian Study of Entrepreneurial Emergence (CAUSEE) whose aim is to "uncover the factors that initiate, hinder and facilitate the process of emergence and development of new independent firms" (Davidsson, Steffens, Gordon & Reynolds, 2008). The methodology used in CAUSEE was previously developed for the PSED (Panel Study of Entrepreneurial Dynamics) in the US and it is specifically designed to capture emerging firms (Gartner, Shaver, Carter and Reynolds, 2004). 30 105 Australian adults (with equal male and female representation) have been randomly interviewed by phone from July 2007 to March 2008. The interviews were then organized in four categories:

1) The respondent participates in a Nascent Firm (i.e., efforts that are under way but have not operated any sales yet) and qualifies as a representative for that firm; 2) The respondent participates in a Young Firm (i.e., firms that start trading after 2004) and qualifies as a representative for that firm; 3) The respondent qualifies as neither and the interview is stopped; 4) The respondent qualifies as neither but is randomly selected (1 in 50) for the comparison group (used for socio-demographic comparison between entrepreneurs and others) (Davidsson, Steffens, Gordon & Reynolds, 2008). This comparison group was not used for this study.

The sample

After this screening, 1010 nascent firms (3,35%) and 1,058 young firms (3,51%) were conducted through the full interview by phone for 40 to 60 minutes. 625 nascent firms and 514 young firms have completed the full interview in the first wave (Davidsson, Steffens, Gordon & Reynolds, 2008). 481 cases form the comparison group. 12 months later, a second wave of full interview was organized between July 2008 and February 2009. Only firms that participate in the two rounds of interviews were included in this paper. The questionnaire is composed of 13 sections for a total of 210 questions. Two sections have been used in this study: Newness and Effectuation/Causation.

Newness variables

We define newness as the degree of innovation of the firm on four different aspects: product/service; promotion and sales; production methods/sourcing; and market creation. Respondents were asked to characterize the degree of newness developed in their firm according to their own perception. This "perceived degree of newness" is consistent with previous research on innovation (Zaltman, Duncan & Holbeck, 1973; Dewar & Dutton 1986).

For the first three aspects, we identify the different degrees of newness by asking the firm the following questions:

1. "Is the (a-b-c)[1] entirely new to the industry?"
2. If yes at Q1: "Is the (a-b-c)[1] entirely new to the world or entirely new just in the places where you are active?"
3. If no at Q1: "If not entirely new is the (a-b-c) [1] somehow substantially different compared to what other businesses have offered before?"

For market creation the following questions were asked:

4. "Do you focus on customers or targets that other businesses have totally neglected?"

If the respondent answers "Yes" the following question was asked:

5. "Does that mean that you focus on serving customers or target markets that no other businesses focus on or those that most other businesses fail to serve?"

If the respondent answers "No" then the following question was asked:

6. "Is your selection of customers or target markets somehow be substantially different from what other businesses apply?"

We were then able to classify newness for the four aspects in three different dimensions: very high newness (new to the world); medium newness (substantially different); low newness (imitative).

Effectuation variables

We measured effectuation by asking the respondents eight forced choice questions using the five items characterizing effectuation developed by Sarasvathy (2001) namely: affordable loss; attitude toward contingencies/unexpected events; strategic orientation/control (developing new opportunities); development of partnership; use of internal resources. Those items are also consistent with the measure of effectuation developed by Chandler, DeTienne & Mumford (2007). The following three measures were used and tested: one index for causation and one for effectuation and a continuum measure of effectuation/causation. As effectuation is measured by a combination of five items, we agglomerated all the dimensions of effectuation into one overarching measure that ranges from zero to five. Numbers of effectuation answers were added where a high number reflects a high level of effectuation and consequently a low level of causation.

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[1] The same question was asked to the firms for the first three aspects of newness: a-b-c are to be replaced respectively by a) *the product/service,* b) *a method for promotion and selling,* c) *a method for producing or sourcing.*

Dependent variables

Outcomes

We investigated the following three types of outcomes nascent firms have achieved between the 2 waves of interview:

1. Operational: firms that have raised a revenue for at least 6 of the past 12 months,
2. Terminated: where the firms' members do not intend to work on this start-up effort anymore.
3. Still trying to become operational: firms that do not fall in the two categories above.

Control variables

We controlled for several factors to limit any bias in our analysis namely: numbers of gestation activities already completed to control for the stage of development the nascent firms was when the first interview took place, high-tech firms, retailing, growth focus and firms with non-local sales aspiration.

ANALYSIS

A T-test analysis to compare nascent firms using effectuation and causation between wave 1 and wave 2 is used for Hypotheses 1 & 2.

Hypothesis 3 is tested with logistic regression. Newness is first introduced as a moderator and then a new variable labelled "Newness squared" is introduced to test the curvilinear relationship between the degrees of newness and the use of effectuation/causation on the three venture outcomes.

Our analysis compares the effects of effectuation and causation on three outcomes. However, to deliver more relevant and clearer results to interpret those outcomes are compared against each other on a dual basis (ie: operational versus still trying; operational versus terminated; still trying versus terminated). As a result, some cases are missing when the analysis is run as nascent firms achieving the third outcome are excluded momentarily. Becoming "operational" is assumed to represent at this stage a more satisfactory outcome and being "terminated" is considered the less successful. This interpretation is not without disadvantages and previous research have drawn the attention on the fact that terminating a venture early may be better than closing down later if the venture was not sustainable to avoid escalation commitments (Davidsson, 2004). While the three possible comparisons have been examined and tested only results comparing firms getting operational versus those in the still trying phase are presented on this paper.

RESULTS

From the 625 nascent firms in the sample, 370 were included in the analysis of the operational versus trying and 255 were considered missing as explicated above.

Independent samples T-tests were conducted to compare the impact of effectuation and causation on three different outcomes for nascent firms namely: becoming operational; being in a "still trying" phase; being terminated. Only results for the first outcome (operational versus still trying) are reported here. On the 2nd wave of the interview, 153 nascent firms are operational while 217 are in "the still trying" phase. There is a difference regarding the approach used by the firms and if results are not significant for effectuation (p=.639 -two-tailed- CI= -.22 to .36) they are very clear for both causation (p=.001; -two-tailed- CI=-.74 to -.21) and for the continuum measure of causation/effectuation (p=.024 two-tailed). Hypothesis 1 suggesting that nascent firms using a causal approach are more likely to become operational before their counterpart using effectuation is supported. No significant results were found to support Hypothesis 2, suggesting that on a random sample of nascent firms effectuation does not appear to delay the process to get operational.

Table 1 reports the results for our hypotheses introducing newness as a moderator. The model is statistically significant X^2 (11, n=370)=92,095, p <0,001. As a whole, the model explains between 22% (Cox and Snell R^2) and 29,7% (Nagelkerke R^2) of the variance in becoming operational versus

being in the still trying stage. 71,6% of the cases was correctly classified. The continuum measure of effectuation and causation coupled with newness squared shows significant results (.03) and supports H3a. Interestingly, significant opposite effects where found regarding H3b & c when degrees of newness increase. Our results suggest that effectuation has a positive effect to become operational for nascent firms developing higher degrees of newness while causation is more beneficial for nascent firms engaging in lower levels of newness and becomes detrimental for firms located in the higher end of innovation development (Figure 1).

Independent Variables	Model 1		Model 2		Model 3	
	B	S.E.	B	S.E.	B	S.E.
Gestation activities	.116***	.021	.114***	.021	.118***	.021
Retailing	.875***	.334	.857*	.336	.817*	.338
Product	-.371	.275	-.386	.277	-.360	.279
Hitech	-.564*	.269	-.570*	.270	-.568*	.273
Newness	-.777**	.280	-.847**	.284	-.843**	.287
Growth Focus	-.008*	.004	-.008*	.004	-.009*	.004
NonLocal Sales Focus	.090	.151	.104	.151	3.295†	1.747
Newness squared	-.026	.016	-.026	.016	-.448*	.195
CAUEFF			-1.515†	.827	.989	2.331
CAUEFF by newness					-2.091†	1.148
CAUEFF by newness squared					.275*	.127
Constant	-.788†		1.525	1.341	-2.300	3.546
R^2 model	83.243***		86.645***		92.095***	
-2 log likehood	418.560		415.158		409.707	
Cox & Snell R^2	.201		.209		.220	
Nagelkerke R^2	.271		.281		.297	
N	370		370		370	

Notes : † p <0.1 ;* p <0.05 ; ** p <0.01 ; *** p <0.001

Table 1: Logistic regression testing the curvilinear effect between the degrees of newness and the use of effectuation by nascent firms on reaching operational stage.

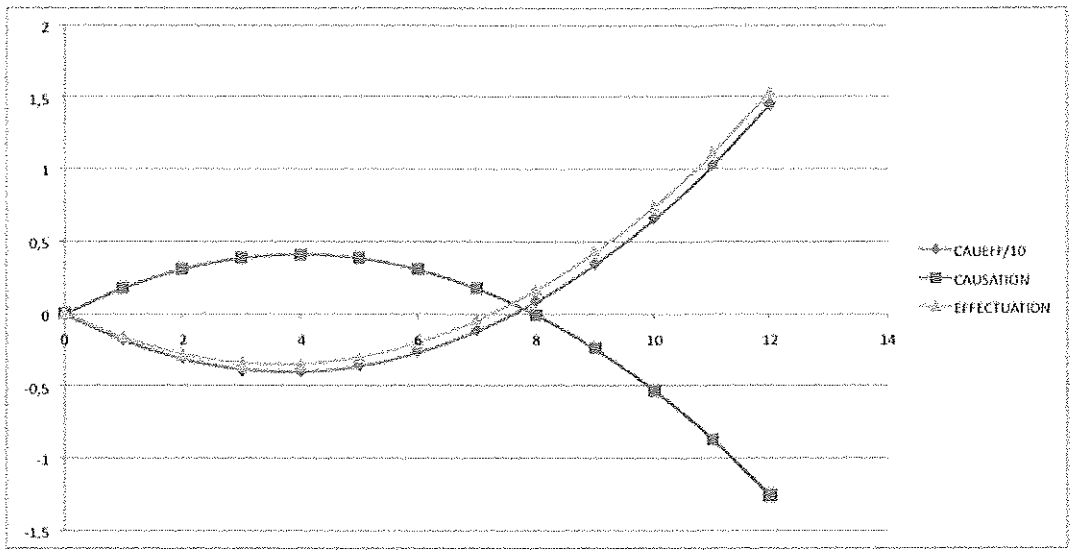

Figure 1: Graphical representation of the moderation effect of newness on performance for nascent firms using effectuation and causation.

DISCUSSION

This paper explored relationships between two sets of strategies used by nascent firms -effectuation & causation- and measures the impact these approaches may have on the firms' outcomes. Overall, causation is clearly defined from effectuation and results for this construct shows significant effects. Following previous research, we found that causation and planning types of strategies are effective in getting nascent firms operational. However, we did not discover a negative effect for firms using effectuation, an approach described as opposite to causation.

Newness appears as an important factor related to both firm strategy and outcomes. Relationships between newness and uncertainty have been investigated and a debate has agitated the strategy literature for several years on the most appropriate strategy to use in these unstable situations. Effectuation, as a new iterative approach seems to be beneficial to innovative firms dealing with higher degrees of Knightian-type uncertainty where tools from predictive strategies cannot be used.

The theoretical model of effectuation has been designed by looking at a limited numbers of expert entrepreneurs (Sarasvathy, 2001). To the best of our knowledge, no investigation has been realised on a random sample of firms. As such, our preliminary findings using a firm-level of analysis contribute not only to the literature on effectuation but also to the entrepreneurship knowledge of processes of firm emergence and on the impacts of strategic choices in the early stages of new venture creation.

LIMITATIONS & FUTURE RESEARCH

While longitudinal data on a large sample of nascent ventures has been collected only the 2 waves of data available so far have formed the basis of this study. Possibility to examine the hypotheses on a longer timeframe may uncover new results and may increase the robustness and generalization of our preliminary findings. Relationships between strategy and financial performance may need between 3 and 5 years to appear (Boyd, 1991; Robinson & Pearce, 1983). However, evaluating the financial performance of nascent firms pose several issues that are beyond the scope of this paper. This study did not assess the financial performance of the nascent firms per se (by looking at the balance sheet for example). Instead, we chose to look at a set of outcomes that we believe reflect better the performance of nascent firms in their early years, ie: whether firms operate in the market on a regular basis; are still in a "trying to become operational" period or have terminated their activities.

In this paper, newness has been tested as an aggregate measure with three levels: imitative; medium level of newness and breakthrough and results contribute to the conversation on the relationships between effectuation and newness. We intend to refine the analysis further by looking into four types of newness (product/service; promotion and selling; producing/sourcing; new market creation) and to cross them with industries while keeping effectuation/causation as a dichotomy. Fine-graining the analysis will provide a more accurate picture of the process underlying new venture creation and the impact of effectuation/causation strategies on the firms outcomes.

Moreover, capturing highly innovative nascent firms from a random sampling is complex and daunting task that may become time and resources expensive. Further research may want to replicate and explore further our hypotheses on the relationships between effectuation, newness and performance on a dedicated sample of nascent firms developing high degrees of newness to generalize and validate the preliminary results of this study.

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